

PINE RIVER RESERVOIR DAM
Mississippi River Headwaters Reservoirs
Crosslake Vicinity
Crow Wing County
Minnesota

HAER No. MN-68

HAER
MINN
18-CROLK.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historical American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD
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I. Introduction

Location: Pine River, Crosslake Vicinity,
Crow Wing County, Minnesota

QUAD: Crosslake Quadrangle

UTM: N5168800, E414890

Date of
Construction: 1884-1886, Reconstruction 1905-1907

Present Owner: St. Paul District, U.S. Army Corps of
Engineers

Present Use: Flood Control, Recreation, Natural Resources
Management

Significance: The Pine River Dam is one of six Mississippi
River Headwaters Reservoirs dam sites that
are historically significant for their
association with navigation, commerce,
tourism, the Ojibway Indians, and U.S. Indian
policy in Minnesota in the late 19th century.

By providing a consistent flow of water
throughout the navigation season, the
Pine River Dam enhanced navigation and
aided in the commercial development of the
Upper Mississippi River and the surrounding
region. The dam site was also one of the
earliest non-Indian settlements in the region
and by the late 19th century was attracting
some of the first tourists to the area. The
Mississippi Headwaters project precipitated
a century-long conflict between the tribe and
the U.S. government over the damages
resulting from the inundation of tribal lands
and property.

Historian: Dr. Jane Lamm Carroll
St. Paul District
U.S. Army, Corps of Engineers

II. HISTORY

The Pine River Dam is located on the Pine River at the outlet of Cross Lake in Crow Wing County, Minnesota. It is 15 miles above the junction of the Pine and Mississippi rivers and 185 river miles above St. Paul. The total drainage area of the reservoir, known as the Whitefish Chain of Lakes, is 562 square miles and contains 15 natural lakes. Pine River was the fourth dam constructed as part of the Mississippi River Headwaters Reservoirs system (HAER MN-64).

The Corps began the original timber dam in 1884 and put it into operation in 1886. The structure consisted of a 1,265-foot embankment and a 235-foot timber crib filled with stone. The dam had thirteen discharge sluices and one log sluice. Machinery and supplies used at the previous three dams were reused at Pine River. The Corps reconstructed the dam with concrete between 1905 and 1907.¹

The existing dam has an earthen dike with a timber diaphragm core wall filled with puddled clay. The eight-foot roadway that tops the structure is no longer in use. The concrete control structure that replaced the old crib work is 233 feet long and is supported on the timber piles from the original dam. Thirteen six-foot sluiceways are gated with hand-operated, worm-gear machinery.

In 1912, the Corps added a fishway, but neither the log sluice nor the fishway are used any longer. The Corps also

completed a perimeter dike system in the years between 1899 and 1914. The timber apron was replaced in 1950 with a new concrete and timber apron. The concrete parapet of the control structure, which dates from 1907, has not been modified. The control structure's arched openings have a distinctive appearance.²

In 1934, representatives of the Portland Cement Association, then meeting in St. Paul, reported that the Pine River Dam was the "finest concrete structure from the point of view of durability" of which they were aware.³

No structures remain from the complex of seventeen buildings that the Corps erected in 1884. The original dam site complex included a dam tender's house, laborer's quarters, engineer's quarters, a dining hall, an office building, an officer's house, a wood shed, a chicken coop, a barn, a warehouse, a sawmill, a carpenter shop, and a blacksmith shop. These were frame buildings covered with rough boards. After construction was completed, the Corps removed most of these buildings except for the dam tender's dwelling and a few other support structures. In 1911, the Corps built a new house, office, and barn at Pine River. After fire destroyed the house in 1921, the Corps built another dwelling the next year. A 1937 photograph of new house indicates that it had a stucco exterior, asbestos cement shingle roof, and a simple bungalow design.

A 1929 map of the Pine River Dam Site shows a house, office,

a barn, a carpenter shop, a blacksmith shop, two warehouses, a wood shed, and a chicken coop. After the fire destroyed the second house in 1959, the dwelling was not replaced.⁴ Due to the extensive redevelopment of the Pine River Dam Site for public recreation, there is no visible evidence of any of these structures.

Historical Significance of the Pine River Dam Site

As the fourth dam site in the Headwaters reservoirs system, Pine River played an important role in enhancing navigation on the Upper Mississippi and affected regional commerce. Logging began in Crow Wing and Cass counties north of Brainerd in the late 1870s. By the time the Corps built the Pine River dam, the lumber industry was already well established in the vicinity. As at the other dams, sluicing logs was a part of the dam tender's daily routine. Although there had been logging activity in the Crow Wing River area earlier, in 1884 the Pine River dam site was the first permanent non-Indian settlement in the Cross Lake vicinity. At that time, a rancher named Barclay lived 10 miles west, on the opposite side of the Whitefish Chain of Lakes. Brainerd, the small lumber town, was located 20 miles south of the dam site.

In the early 1900s, tourists began visiting the Brainerd area. By the 1910s, Cross Lake and the other lakes in the

Whitefish Chain had become increasingly popular as sites for summer cabins and resorts. Northern Pacific Railroad advertised the region extensively.⁵ The Pine River Dam attracted both fishermen and tourists. Eventually it would become the most popular recreation area of the six dam sites.

Pine River is the least significant of the dam sites in relation to the Minnesota Ojibway. Unlike the five other dam sites, Pine River was not close to any permanent Ojibway villages. Although the tribe used and occupied the lands around the Whitefish Chain of Lakes until the mid-19th century for temporary encampments and hunting, the Ojibway did not permanently settle in the vicinity.⁶

The Barclay ranch was a popular hunting and trading campsite for the Ojibway in the late 1800s.⁷ A century earlier, the Sandy Lake band of Ojibway had also regularly travelled to the Pine River area to hunt and trade.⁸ By the 1880s, the Ojibway had moved their primary activity sites north of Pine River, although one small band of the tribe retained a permanent village to the south at Gull Lake.

1. See Mississippi River Headwaters Reservoirs, HAER No. MN-64.
2. Zellie, "Upper Mississippi Headwaters Damsites Cultural Resources Investigation," Report Prepared for the St. Paul District, Corps of Engineers, 1988, p.79.
3. Old Man River (September, 1934), St. Paul District Archives.
4. Zellie, p.82.
5. Northern Pacific Railroad Brochure, 1916, Minnesota Historical Society Reference Library.
6. Harold Hickerson, Chippewa Indians in Minnesota II (New York: Garland Publishing, 1974), pp.76-86.
7. Willard Glazier, Down the Great River (Philadelphia: Hubbard Brothers, 1887), p.35.
8. Hickerson, p.86.